

Worcester Polytechnic Institute DigitalCommons@WPI

Tech News All Issues

WPI Student Publications

1-4-1921

The Tech News Volume 12, Issue 14, January 4 1921

The Students of Worcester Polytechnic Institute

Follow this and additional works at: <http://digitalcommons.wpi.edu/technews>

Recommended Citation

The Students of Worcester Polytechnic Institute, "The Tech News Volume 12, Issue 14, January 4 1921" (1921). *Tech News All Issues*. Book 1130.
<http://digitalcommons.wpi.edu/technews/1130>

This Article is brought to you for free and open access by the WPI Student Publications at DigitalCommons@WPI. It has been accepted for inclusion in Tech News All Issues by an authorized administrator of DigitalCommons@WPI.

TECH NEWS



VOL. XII

WORCESTER, MASS., JANUARY 4, 1921

NO 14

HARVARD'S TEAM

STRENGTH OF CAMBRIDGE MEN UNKNOWN

Tech's first real basketball opponent comes Saturday night when Harvard journeys down from Cambridge. Everything gives promise of a fast game, too, for Harvard does not come without a reputation even though basketball is a new sport with them.

In 1908 the game was abolished at Harvard as a varsity sport and since then this great college has been unrepresented in the popular indoor sport. There have been interclass games, and this year the authorities decided to come back into the intercollegiate field.

With the resources of a big college Harvard has been able to get out a good team even if it is their first year at the sport. Two of the players have already made their mark in football and the others are athletes of experience.

Fitts, all around star halfback of football, is their best basketball player. He is either a forward or center, playing both positions skillfully.

Talbert, star tackle, is a guard and has the reputation of being a fast, clever player. McLeish, a star of last year's freshman team, is another good player who must be reckoned with. Pyson, who plays center when Fitts is at forward, is also good.

Taken as a whole, Harvard's team has the name of being especially strong on the defense. They show some team work that is hard to break through, but their offensive seems a little weak.

Early in the season Harvard played an exhibition game before coaches and basketball officials from all over New England. Coach Swasey was on hand and thus was able to get a line on their style of play. Since then they have played one game and that a victory over Clark.

Harvard's team is not coming alone, either. This is their first big game and the comparatively short distance between Worcester and Cambridge is being taken advantage of. Crimson rooters are expected in quantities. The Harvard Club of Worcester has itself reserved a hundred seats.

Coach Swasey is confident as to the results of the game. With the regular squad all back in their old trim and several good second string men to rely on there is no reason why Tech can not easily come out on top. The team certainly can if the student body will do its part and show Harvard that this is a live and going place worthy of a championship team.

CARNIVAL PROCEEDS GO FOR RELIEF

Of the American Service in Europe

At the final meeting of the Carnival Committee, it was voted that the proceeds of the Carnival should go to the Athletic Association, but by an informal vote of the committee the money was voted to the American Relief Service in Europe.

A detailed report follows:

Receipts	
Sale of Tickets	\$313 55
Sale of Refreshments	99 11
	<hr/> \$412 66
Expenditures	
Orchestra	\$43 00
For hall, chairs, stage, janitor service	78 90
Refreshments	72 12
Programs, Tickets, Posters	33 75
Confetti, Streamers	23 50
	<hr/> \$251 27
Balance	
Total Receipts	\$412 66
Total Expenditures	251 27
	<hr/> \$161 39

DRAMATIC ASSOCIATION LOOKING FOR A COACH

Loss of Mr. Carroll Leaves Big Hole

The Dramatic Association management is finding difficulty in locating a coach for the next Tech Show. The coach of the past six years' shows, Fred Carroll, because of his business, is required to be in Boston and will not be able to coach the show this year. The attempt to find someone to replace him has so far not met with any great success.

It is vitally important that this question be solved in the near future, if we are to have as successful a show this year as we have had in years past. If anyone knows of any available coach or has any information on the subject whatever, the management would like to be informed at once.

Judgment on the three manuscripts which were offered in the competition held this fall cannot be made until the coach has been chosen, as the coach is one of the committee of three which decides upon the merits of the respective compositions.

TECH WINS FIRST GAME OF SEASON

Defeats Boys' Club, 55-15

In the initial game of the season, Tech defeated the Boys' Club by a score of 55-15. The game started slowly, but as soon as Tech found itself the score began to pile up. The score at the end of the first half stood 23-10 in Tech's favor. Tech started the second half in real earnest and ran up a total of 32 points against their opponents 5.

"Tom" Berry, although not shooting in his usual good form, broke up plays continually by his consistent guarding. Campbell and Stoughton each proved that he had his shooting eye by getting 6 and 5 baskets respectively. Capt. Pickwick was high scorer, totalling 14 points from seven baskets from the floor. Riopel and T. Foley played a good game for the Boys' Club, but were unable to shoot because of the consistent guarding of Pickwick and White.

	Wor. Tech.	floor	fouls	pts.
Campbell rf	6	0	12	
Stoughton lf	5	0	10	
Berry c	2	7	11	
White rg	1	0	2	
Pickwick lg	7	0	14	
Whelpley	1	0	2	
Reed	1	0	2	
Murphy	0	0	0	

	Boys' Club	floor	fouls	pts.
H. Ryan, lg	0	0	0	
Bedard rg	1	0	2	
Riopel c	1	0	2	
E. Ryan	1	1	3	
Brousseau lf	1	1	3	
T. Foley rf	1	0	2	
J. Foley	1	1	3	

Total 55
Time: two 20-minute periods. Fouls called: Campbell 1, Pickwick 1, White 2, Bedard 2, Riopel 3, E. Ryan 3, J. Foley 3, Berry 3, Whelpley 3, Brousseau 5, H. Ryan 5, T. Foley 4. Referee: "Dan" Kelley.

C. E. DEPT.

George H. Anderson and Ernest Thompson of the class of 1920 were here for a short visit. They have recently gone with Pennsylvania Railway, Pittsburgh Division, to work in the Maintenance of Way Department.

Previous to this they were employed by the McClintic-Marshall Construction Company of Pittsburgh, in the Steel Design Department.

SECOND TEAM COMES ACROSS WITH WIN

The second team game was closer than the big game although not as fast. The passing was a little wild at times although the seconds showed flashes of real passing during the second period. The Nortons were outclassed from the start and at no time was Tech in danger. Coach Swasey took the opportunity to give everyone a chance and the score rolled up to thirty-one before the game ended.

Trombley was the individual high scorer, getting fourteen points in the course of the evening. Reed and Whelpley got their share and contributed much in the passing. Murphy and Keith kept the Nortons away from the basket with a good deal of success, most of the baskets against being scored from long shots. For Norton, Grayson and Adams showed pretty good eyes for the basket, but the ball was in their hands but for a small part of the time. The score:

TECH—31	17—NORTON
Reed, Leyland lf	rg Kiersted
Whelpley rf	lg McLeod
Trombley c	c Lockhart
Keith, Cook lg	rf Adams
Murphy, Johnson rg	lf Grayson
Baskets from floor: Reed 3, Trombley 7, Whelpley 2, Keith, Murphy, Grayson, Adams 3, Lockhart, McLeod.	
Free tries: Whelpley 3, Grayson 5.	
Referee: Dan Kelley.	

AFTERMATH PROGRESSES

At a meeting of the "Aftermath" staff last Monday, a cover and border design was adopted, so that printing will be begun on the 1921 class book immediately. Nearly all of the photographs from which cuts are to be made have already been placed in the hands of the engravers, so that those who have not handed in their characteristic picture or arranged with Bushong for a sitting must do so at once in order that they may be included in the "Aftermath."

Every effort is being made this year to have the book ready for publication before the close of school in May. To do this requires, not only the close attention of the staff, but the ready co-operation of the students. As has been suggested before, this "Aftermath" should be more of a TECH book than it is a Senior book. Come '22, '23, and '24,—out with some of those wonderful ideas of yours. We can use them, and with your help this will be the best yet.

TECH NEWS

Published every Tuesday of the School Year by

The Tech News Association of
Worcester Polytechnic Institute
TERMS

Subscription per year . \$2.00
Single Copies .07

EDITORIAL STAFF

Irving R. Smith, '21 Editor-in-Chief
Robert G. Ferguson, '21 Advisory Editor
Lawrence S. Potter, '21 Managing Editor
Leslie M. Abbe, '22 Associate Editor
Russell A. Reed, '22 Associate Editor
Harold P. Tousey, '21 Associate Editor
Robert E. Chapman, '21 News Editor
Edwin L. Sholz, '22 News Editor
Morgan M. Whitney, '22 News Editor

BUSINESS DEPARTMENT

George P. Condit, '21 Business Mgr.
Judson M. Goodnow, '23 Adv. Mgr.
Howard P. Putnam, '22
Subscription Mgr.

REPORTERS

Contributing to This Issue

W. A. Ellsworth, '22 R. M. Henshaw, '22
G. F. Penniman, '22 R. P. Paul, '23
C. S. Williams, Jr., '24 H. Barr, '22
P. H. Duckworth, '24 J. Phelon, '23
L. C. Lovell, '22 J. N. Styffe, '24
H. S. Johnson, '24 K. E. Hapgood, '22
A. D. Craig, '23 F. S. Tabor, '24
R. P. Penfield, '21

All checks made to the Business Manager.

Entered as second class matter, September 21, 1910
at the post-office in Worcester, Mass., under the Act
of March 3, 1879.

THE HEFFERNAN PRESS
Spencer, Mass.

BOOST TECH

JANUARY 4, 1921

EDITORIAL

A few years ago—not more than three or four thousand—Alexander the Great cut the Gordian Knot.

Now, of course, the average Tech man cuts at least a knot a week, when his laundry arrives from home, and thinks nothing of it beyond wondering if there is anything to eat in with the clothes. But in Alexander's case, the first-class oracles and prophets had all for years been telling wild tales about the person who should untie that knot, and the savants of the times were agreed that the person who could accomplish the feat was to conquer the World. All it needed to make Alexander feel dead sure that he was to conquer the map was this one touch, and he went to Delphi, or Cairo, or South Worcester, or wherever that knot was, with a firm resolve to finish the job as regards omens and get to work on the real problem. However, the Gordian Knot lived up to its reputation and held out for hours against the attempts of the valiant warrior to untangle the strands, in spite of the fact that Alex tried all the tricks of Frank Gotch and Harry Houdini before he began to get worried. Then his anger supplemented his worry and out came his trusty blade. The rest is history,—the knot was severed,—clean. Let us emphasize that: it was severed clean.

Next week a Gordian Knot faces every man at the Institute. There is a world to conquer; and it is to be conquered cleanly, this little world of examinations which awaits us. The unraveling of the strands in our knot is concerned with the amount of time and brains that we put into our preparations for the final conflict. And when that final conflict comes, from Thursday to Thursday, let us all draw those swords of the Engineer,—the sliderules,—and cut that knot of ours clean through. Alexander cut his knot with ever so much work and courage connected with it, when he was the same ago that we are, and he did not fall short in his task. History repeats itself, and what man has done once he can do again. These exams have all been passed by Tech men before, and we can do the trick again. But need we say more to impress each one of us that we need to work, and to have backbone enough to face the task required, in order to come through this mid-year gauntlet?

Just let us all buckle down and make sure to untie that knot.

All indications point to a close, fast opening game against Harvard, and we just naturally want to capture this game above all others. Under these circumstances it is very easy, and sometimes natural, to start "ragging" our opponents, and make unpleasant, personal remarks; but our opponents are our guests, and good sportsmanship demands that we treat them courteously. Yell your heads off for our own team, but save the cutting, witless remarks until after the game, when you will forget them anyway. Start the season in the right way, and give our team the very best of clean, enthusiastic support.

The dancing following the first game of the season was not, in many instances, highly creditable to the standards which we hold forth; in fact, as one observer remarked, it was of such a nature as to remind one forcibly of the Casino, and similar high class dance halls. We certainly ought, in our own gymnasium, to do away with the suggestive variations of the modern dances; for all our dances should present an appearance such that we would not be ashamed to have our mothers and sisters look on at any time. Then, too, we have no particular desire for a burly rough-spoken policeman to gently, but publicly, reprove us for our low moral standards as to what is proper on the dance floor.

DEPARTMENT OF PHYSICAL EDUCATION

In order to insure a more general participation in the activities of the gymnasium, tournaments in squash and bowling will commence shortly after the Christmas vacation. These are activities which may be pursued after the student leaves college, and it is hoped that a larger number will develop an interest in them. It is desired to run a general tournament on squash for the championship of the Institute after which four or five man teams will be selected to compete for the class championship. The same system will be followed in bowling. All men who are interested should hand their names in to the gymnasium office at once and the date of the tournament will be announced soon. Prof. Carpenter or Mr. Swasey are glad to teach the game to beginners or to play with any one interested if they wish to make appointments. After the school tournaments are completed, a Faculty team is willing to play a team selected from the student body.

During the holidays the gymnasium floor, locker rooms and shower rooms have been thoroughly scrubbed and cleaned; the basketball courts and tennis courts remarked on the gymnasium floor and an indoor baseball diamond laid out.

The mid-year examinations for the Freshmen and Sophomores in the Department of Physical Education will be held the week of Jan. 5-12 at the regular gymnasium periods for each division. All men having work to make up should get it done before Jan. 13.

All men wishing to try out for the relay team and for the indoor track squad will meet in the gymnasium at 5:00 o'clock on Wednesday night, January 5.

CALENDAR

Wednesday, Jan. 5—Basketball practice at 5:00 p. m.
Band rehearsal at 5:00 p. m.
Glee Club rehearsal at 7:00 p. m.
Thursday, Jan. 6—Basketball practice at 5:00 p. m.
Friday, Jan. 7—Basketball practice at 5:00 p. m.
Saturday, Jan. 8—Basketball, W. P. I. vs. Harvard; North High School vs. W. P. I. Second Team.
Orchestra rehearsal at 5:00 p. m.
Sunday, Jan. 9—Everybody attend church.
Monday, Jan. 10—TECH NEWS assignments given out at 5:00 p. m., Room M 113.

Miss Ruby H. Day's
SATURDAY SUBSCRIPTION ASSEMBLIES
EVERY SATURDAY EVENING 8:15 TO 11:30

TERPSICHOOREAN HALL

SUBSCRIPTION 50c

TECH STUDENTS CORDIALLY INVITED

CLASS FOR BEGINNERS

For particulars call Studio 311 Main St.

Telephone Park 5092

Private lessons by appointment

Trade with the NEWS Advertisers; they are Your Friends.

Get Your Lefax at

THE PAINT STORE

WADSWORTH, HOWLAND & CO.
555 MAIN ST., WORCESTER

Drafting Supplies

COMPLIMENTS

OF

THE BANCROFT

A. E. PERO

FINE WATCH REPAIRING

A SPECIALTY

HIGH GRADE JEWELRY

(The Biggest Little Store in the City)

127 Main Street

L. B. Wheaton

PHOTOGRAPHIC SUPPLIES
CAMERAS

Fountain Pens

Developing and Printing

368 Main Street

Worcester

W. D. Kendall Co.

The Reliable Electric Store
STUDENT LAMPS

Radio Apparatus

268 Main Street

J. C. Freeman & Co.

Optical and Photographic Supplies

First-Class Developing and Printing

Guaranteed

XMAS CARDS, BOOKLETS

TECH STATIONERY

A. P. Lundborg

315 MAIN ST.

Jeweler and Stationer

BARBERING

TECH MEN: for a classy hair-cut try

FANCY'S

52 Main St. Next door to Station A

Good Cutters No long waits

6 Barbers

M. E. DEPARTMENT NOTES**SENIOR CLASS**

Members of the Senior class, Mechanical Engineering Course, are requested to note their first and second choice of the following requested subjects for thesis work and hand the same to Professor Bird on or before Saturday noon, January 8, 1921, together with the name of the classmate with whom they desire to work, each subject requiring two men.

Members of the class may suggest other subjects and final assignments will not be made until all questions relating to thesis work have been given due consideration.

Gas Engineering

G-1. Effect of Water Injection on Gas Engine Operation.

G-2. Investigation of Pump and Thermo Siphon Cooling.

G-3. Test of a Simple Humphrey Gas Pump.

G-4. Construction of a High Speed Gas Engine Indicator for Use in Fuel Tests.

G-5. Possible Increase of Power and Efficiency of a Standard Ford Motor.

Hydraulic Engineering

H-1. Salt Solution Tests.

H-2. Color and Salt Velocity Measurements.

H-3. Coefficients of Nozzles with Varying Salt Densities.

H-4. Comparative Current Meter Tests.

H-5. Uniform Velocity Pilot Tube Rating Station.

Power Transmission

P-1. Efficiency Tests of a Gear Drive.

P-2. Efficiency Tests of a Rope Drive.

P-3. Efficiency Tests of a Chain Drive.

Shop Engineering

W-1 and 2. Investigation of Shop Problems—Reed & Prince Mfg. Co.

W-3. Relation of Feed, Speed and Thrust of Twist Drills.

W-4. Investigation of the Point of Thinning of Twist Drills.

W-5. Tests of Coarse Pitch Milling Cutters.

W-6. Safety Engineering in the Washburn Shops.

Steam Engineering

S-1. Flow of Steam Through Small Pipes.

S-2. Test of a Turbo-Blower for Forced Draft.

S-3. Test of a Turbo-Centrifugal Boiler Feed Pump.

Strength of Materials

M-1. Heating and Cooling Curves for High Speed Steels.

M-2. Effect of Heat Treatment on the Physical Properties of Low Carbon Steel.

M-3. Design and Construction of a Wire Testing Machine.

M-4. Design of a Device for Measuring Belt Tensions.

Livermore, '19

Mr. and Mrs. Winthrop Ellsworth Benner announce the marriage of their niece, Alice Carolena Brown, to Mr. William Tingley Livermore, on Saturday, the eighteenth of December, in Lawrence, Massachusetts.

FRATERNITY NOTES**DELTA TAU**

An informal dance was held at the Oaks on Tuesday, December 21, 1920. Many alumni were present. On Wednesday evening, December 22, the annual Christmas dinner was held at the house. Many alumni partook of the feast.

The marriage of Winfrid D. Wilkinson, '18, to Miss Edith Lockwood of Worcester took place the week before Christmas.

William T. Livermore, '19, married Miss Alice Brown of Lawrence, Mass., on the 18th of December. They will reside in Natick, Mass.

THETA CHI

The initiation of the following men has been announced:

Normand Turner, '23, of New York. Sydney Anthony, '24, of Manchester, N. H.

George H. Hoag, '24, of Pittsfield, Mass.

Alfred K. Morgan, '24, of Manchester, N. H.

Frank C. Johnson, '24, of Springfield, Mass.

G. W. Brown, ex-'21; Walker Armington, ex-'21, and Donald Fritch, ex-'22, were home for the holidays, and paid us a visit. G. W. Brown is now at the University of Michigan; Walker Armington is at the Wharton School of Finance in the University of Pennsylvania, and Donald Fritch is at Norwich.

SIGMA ALPHA EPSILON

In the last TECH NEWS a list of names was given as having been pledged. This report should have read that those men were initiated.

Oliver Wolf, '20, and Francis E. Smith, '20, visited the house for a couple of days. They are now working in the Government Research Bureau at Washington, D. C.

Raymond Bishop, '20, also visited the house.

The engagement of Edward I. Comins, '13, to Miss Dorothy Rice, both of Worcester, was recently announced.

A. T. O.

Roger Jenness, '21, is attending the A. T. O. Congress at Omaha, Neb., Dec. 27-29, as delegate from this chapter.

Thirty Alumni were back for the Christmas banquet on December 19.

PHI SIGMA KAPPA

The Christmas gathering on Decem-

ber 19 was attended by fifteen Alumni.

LAMBDA CHI ALPHA

Roger Grimwade and G. W. Anderson, '20, visited the house during the week. Anderson is in railroad work in Pennsylvania at the present time.

WIRELESS CLUB

The Wireless Club will hold buzzer-classes on Monday, Wednesday and Friday afternoons from four to six, for the instruction of those men who wish to learn to operate. In years past the Club has been fortunate in having about fifteen men who could operate as amateurs. This year there are only four—therefore the classes to turn out new operators. It is expected that the wireless apparatus will be in condition to operate soon. There are plans underway for a membership in the Inter-collegiate Relay Association to which M. I. T., Dartmouth, Cornell and other colleges belong for the purpose of reporting such activities as might appear in TECH NEWS. It is hoped that a large number of freshmen will be interested in the work.

COSMOPOLITAN CLUB

The members of the Cosmopolitan Club journeyed over to Clark University on December 22, in response to the invitation of the Clark Chapter of the Cosmopolitan Club to the Worcester Tech Chapter to a meeting in Dean James Porter's house. Professor Blinksby of Clark University gave an address on "The Present Situation in Europe." He divided his subject into the political and the economical conditions. He mentioned the fact that both France and England have got their industries back to normal. Germany, Italy, and Hungary, on the other hand, are in very bad shape. The political situation in Europe is very complicated. There is strong jealousy between England and France, and between France and Italy. Professor Blinksby even went so far as to say that in the near future there might be a war in Europe again.

The next meeting of the Cosmopolitan Club will be held Jan. 5, 1921. Election of officers will be held at this meeting. President Li Chen will speak. Mr. Chen has been appointed delegate to the Ann Arbor Cosmopolitan Club annual convention.

WHO'S WHO AT TECH.

President, 1921	P. K. Davis	P-4963
President, 1922	C. H. Needham	P-50928
President, 1923	T. W. Berry	P-1050
President, 1924	Wm. Welch	P-50928
Bus. Manager, Tech Show	C. H. Needham	P-50928
Manager Musical Association	E. L. Sholz	P-1050
Football Manager	G. V. Upton, Jr.	P-52278
Baseball Manager	C. A. Callahan	P-1564
Basketball Manager	E. B. Saunders	P-52278
TECH NEWS-Editorial	I. R. Smith	P-50928
TECH NEWS-Business	G. P. Condit	P-1050
1921 Aftermath-Editorial	R. G. Ferguson	P-52278
1921 Aftermath-Business	H. E. Drake	P-50928
General Secretary Y. M. C. A.	W. B. Anthony	P-687



Everything Electrical
COMPLETE ASSORTMENT
OF
STUDENT LAMPS
Bancroft Electric Co.
39 Pleasant St.

Barnard, Sumner & Putnam Co.

Young Men Can Economize by
Dealing With Us

TIES, SHIRTS, COLLARS, SUSPENDERS, NIGHTWEAR, SOCKS, AND ALL FIXINGS

IT PAYS TO BUY SUCH THINGS IN
A DEPARTMENT STORE

For Reliable Men's Furnishing and Shoes

Drop in to see Cashner's
at 137 Main Street
Cashner sells for less

United Shoe Repairing Co.

We sell a full line of Men's up-to-date
Dress Shoes at Reasonable Prices
67 MAIN STREET WORCESTER

Duncan & Goodell Co.

Wholesale and Retail Dealers in
HARDWARE, CUTLERY,

AUTOMOBILE ACCESSORIES

AND MILL SUPPLIES

404 MAIN ST. WORCESTER

Headquarters For Tech Men

The Home of Kuppen-
heimer Smart Clothes
for Young Men . . .

The Live Store

KENNEY - KENNEDY CO.



TECH

Society and Fraternity Insignias

Manufactured by

The Thomas D. Gard Co., Inc.

393 Main St., Worc. 15 Maiden Lane, N. Y.

Portrait Photographer

BUSHONG

STUDIO

311 MAIN STREET.

WORCESTER, MASS



Individuality
—IN—
Hair Cutting

We pride ourselves on the at-
tention we give to the little de-
tails, which count so much in
giving an air of individuality to
our customers. There is a big
difference in the final appearance.

**STATE MUTUAL
BARBER SHOP**

PHILIP PHILLIPS, Prop.
Sixth Floor

CLASS PICTURES AND DIPLOMAS

framed at the

C. S. BOUTELLE GIFT SHOP

256 Main Street

CHAPIN & O'BRIEN

JEWELERS

330 Main Street, Worcester, Mass.

Typewriting and Multigraphing

CARRIE F. BROWN

Park 616

616 State Mutual

RIFLE CLUB NEWS

The scores for the Freshman-Senior
match are as follows:

Freshmen		Seniors	
Mulligan	144	Chapman	144
Welch	144	Perry	143
Beckley	140	Smith	142
Jordan	138	Whitmore	137
Tucker	130	Martin	132
	696		698

This was the last of the annual inter-
class matches, the Juniors already hav-
ing won the series. In these matches
there were eight men who averaged bet-
ter than 95%. Among these were Blod-
gett, '23, and Jordan, '24, who are cer-
tain to make some of last year's men
shoot for their places. The highest sin-
gle score was 150, by Jordan, the only
"possible" made.

Conditions for the 1921 N. R. A. In-
tercollegiate Tournament have just been
received and show a radical change from
those of last year. There will be ten N.
R. A. matches, five of which are to be

shot from a standing position, and five
from a prone position, alternate weeks.
The first match for the varsity team will
be a dual match with Tufts Rifle Team
on Tuesday, January 25. The N. R. A.
Intercollegiate tournament begins the
week following.

In order to make a fair selection for
the ten men of the varsity team, there
is to be an Interclass Standing Position
Tournament, ten shots only. The Fresh-
man-Junior match comes Thursday, Jan.
6, and the Sophomore-Senior match Fri-
day, Jan. 7. Watch the bulletin board
for class teams and support your class!
No man will shoot unless he has paid
his club dues of two dollars. Don't drop
out if you don't land on the team the
first time. Join the club and keep prac-
ticing.

Professor Fairfield, who received an
injury to his shoulder, as a result of
a fall several weeks ago, is recovering
rapidly and expects to be on the Hill
again shortly after the Christmas vaca-
tion.



What Is Vacuum?

IF THE traffic policeman did not hold up his hand and
control the automobiles and people there
would be collisions, confusion, and but little progress
in any direction. His business is to *direct*.

The physicist who tries to obtain a vacuum that is nearly
perfect has a problem somewhat like that of the traffic
policeman. Air is composed of molecules—billions and
billions of them flying about in all directions and often
colliding. The physicist's pump is designed to make the
molecules travel in one direction—out through the exhaust.
The molecules are much too small to be seen even with a
microscope, but the pump jogs them along and at least
starts them in the right direction.

A perfect vacuum would be one in which there is not a
single free molecule.

For over forty years scientists have been trying to pump
and jog and herd more molecules out of vessels. There are
still in the best vacuum obtainable more molecules per
cubic centimeter than there are people in the world, in
other words, about two billion. Whenever a new jogging
device is invented, it becomes possible to eject a few
million more molecules.

The Research Laboratories of the General Electric
Company have spent years in trying to drive more and
more molecules of air from containers. The chief purpose
has been to study the effects obtained, as, for example,
the boiling away of metals in a vacuum.

This investigation of high vacua had unexpected results. It became
possible to make better X-ray tubes—better because the X-rays could
be controlled; to make the electron tubes now so essential in long-
range wireless communication more efficient and trustworthy; and to
develop an entirely new type of incandescent lamp, one which is filled
with a gas and which gives more light than any of the older lamps.

No one can foretell what will be the outcome of research in pure
science. New knowledge, new ideas inevitably are gained. And sooner
or later this new knowledge, these new ideas find a practical applica-
tion. For this reason the primary purpose of the Research Labora-
tories of the General Electric Company is the broadening of human
knowledge.

General Electric
General Office **Company** Schenectady, N. Y.

96-876-A

*Society Brand 2nd
Fashion Park*

OVERCOATS

—Selling Now at
Lower Prices

WARE PRATT CO.

STYLE HEADQUARTERS FOR TECH MEN

TABLE LAMPS



Economy Electric Co.
22 FOSTER STREET

When you need Flowers
Remember

LANGE

Worcester's Leading Florist

371-373 Main St.

Phone Park 156-157

==POLI'S==

The Base
Hospital for
the Greasy
Grinds.

The Horace Partridge Co.

557 Main Street, Franklin Square

Manufacturers

ATHLETIC AND SPORTING GOODS

Discount allowed all Tech Students

Get Discount Cards from Mr. Swasey

GEORGE W. JONES, Mgr.

Coach W. P. I. Football and Baseball,

1914-1915

NARCUS BROS.

24 Pleasant St.

We Carry a Full Line Loose Leaf

Memo. Books, Folders, and

Drawing Materials

One minute from Easton's